

UID Breakout Session

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UID Critical Issues



Critical Issues

- ◆ UID Registry Concept Definition
 - Brainstorming Session
 - Integrate with Logistics, Property, Finance, and Acquisition
- ◆ Data Capture
 - Develop a strategy to build support for data capture requirements in relation to other initiatives
- ◆ Enabling an Integrated Digital Environment with Industry for Government Furnished Property
 - Brainstorming Session with AIA
 - Industry Collaboration Meeting (AIA, GEIA, NDIA, other Industry Assns.)
- ◆ UID End to End Process
 - Data and Process View
 - Systems View
- ◆ Coordination of Military and Intra-DoD Emerging UID Policies
- ◆ Development of Program Strategies for Deployment to Legacy



UID Registry

(The Rules)

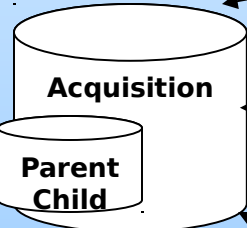
Top Level



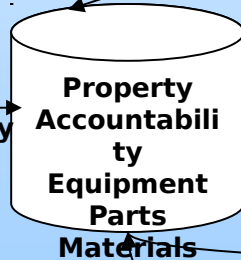
Second Level



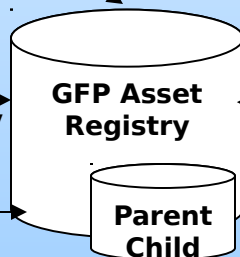
Lower Levels



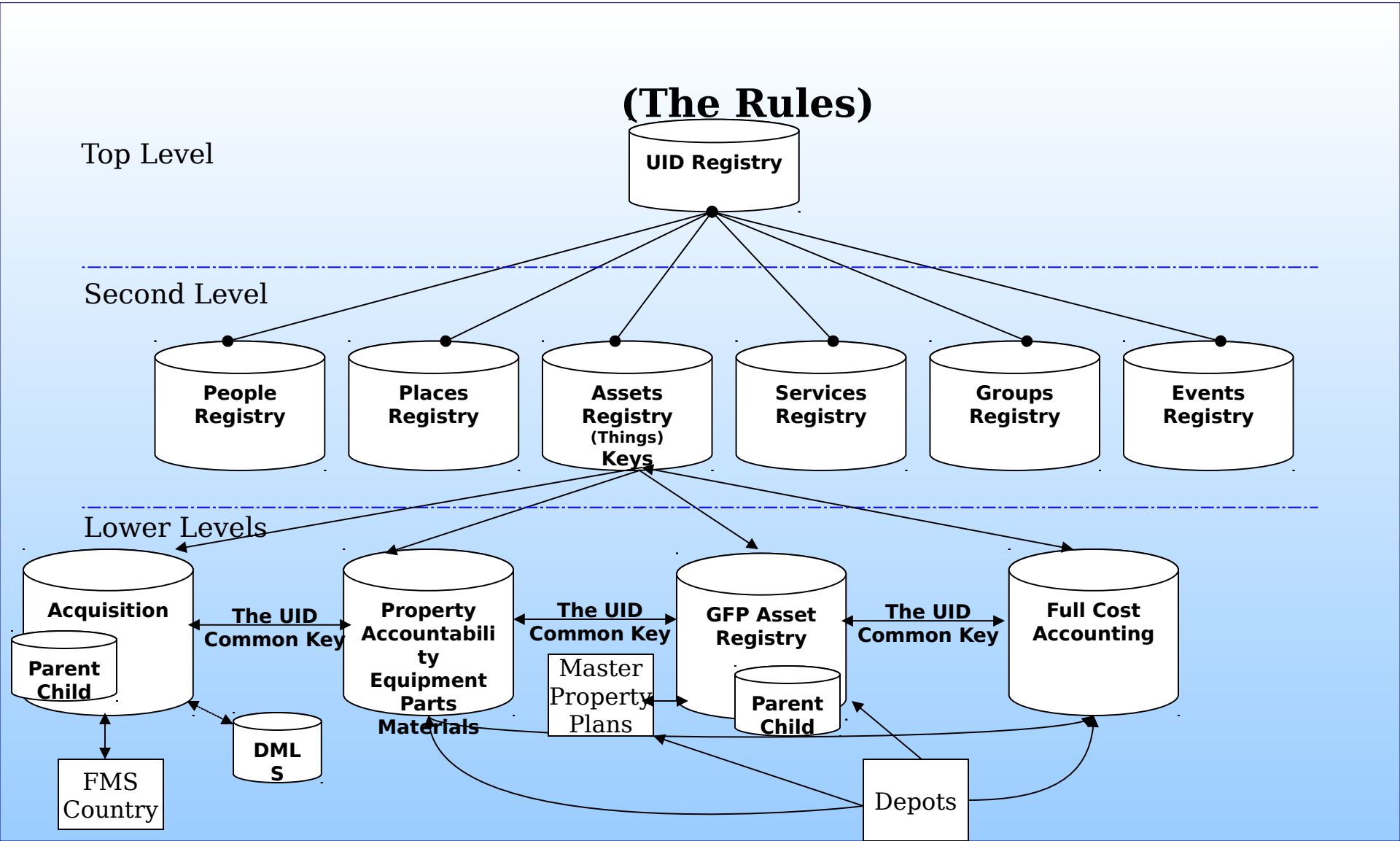
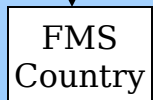
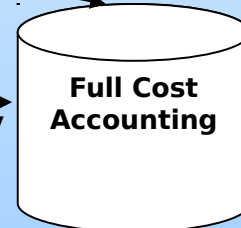
The UID Common Key



The UID Common Key



The UID Common Key



UID and the Network and Information Integration (NII) Initiative



NII Vision

Power to the Edge

People throughout the trusted, dependable and ubiquitous network are empowered by their ability to access information and recognized for the inputs they provide.

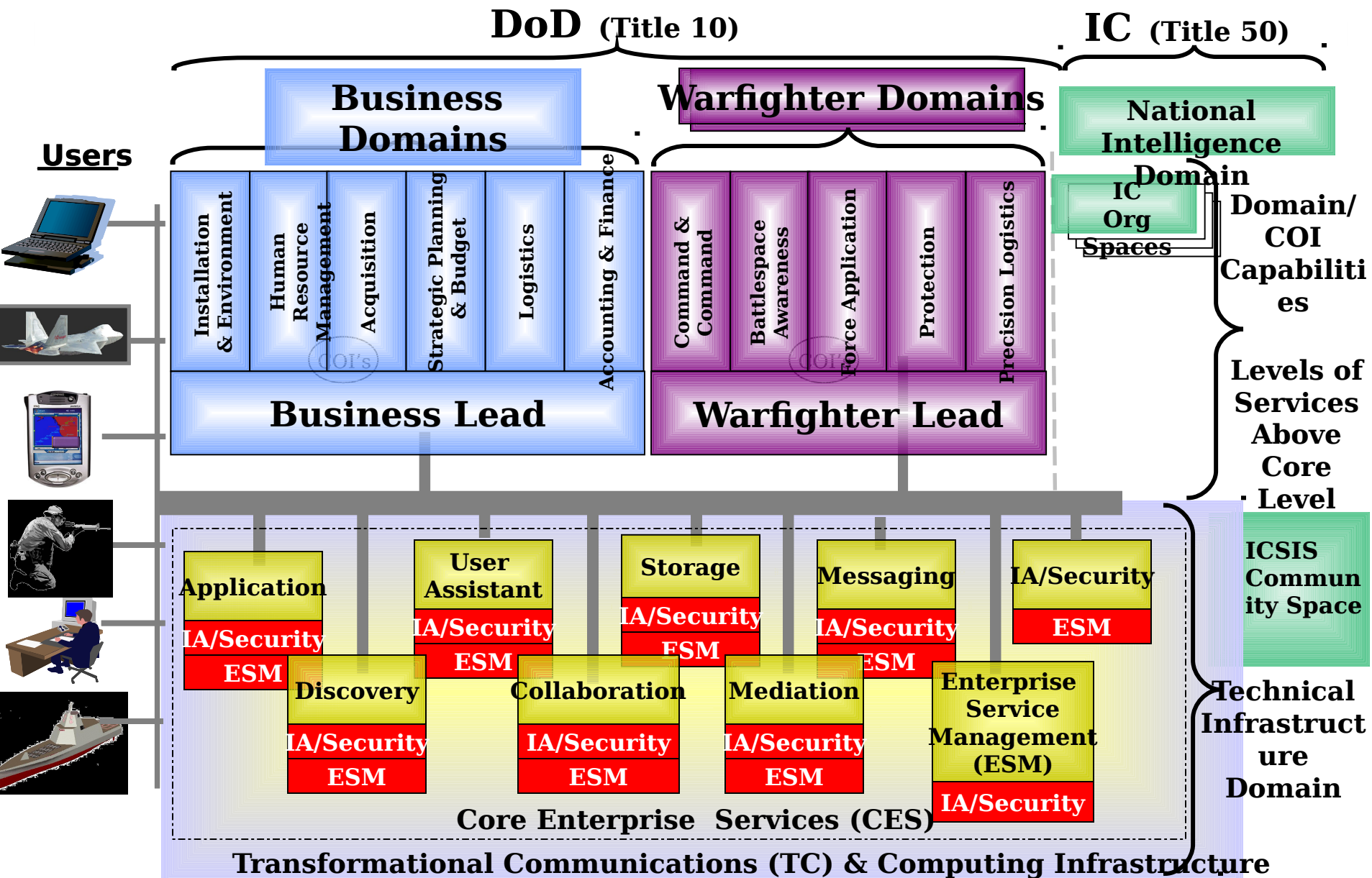
Three goals:

- Build the net**
- Populate it**
- Protect it**



Net-Centric Enterprise

Support real-time & near-real-time warrior needs, and business users





A Net-Centric DoD

- ◆ An engineered, DoD-wide infrastructure (*robust, COTS-based, sustainable environment*) supporting:
- ◆ Faster application implementation
 - *Fewer dollars for application integration*
- ◆ (Technical) ability to access the data you need anytime and anyplace
 - *Less dependency on others and/or software to “find” or translate information*
- ◆ Collaboration
 - *Better understanding of how to collaborate effectively*
 - *Tools that meet organizational needs*
- ◆ Shortened timelines between recognizing the need for change and integrating a new capability into the operational force (agility)
 - *IT isn't the long-pole on organizational change/implementing new capabilities*

RFID/UID Process Integration



UID and RFID Integration

2004 Actions – Supplier Focus

Priority	Task #	Task Description
1	1	Develop a joint set of RFID & UID scenarios/trigger events separate from the RFID-unique events
1	2	Explore additional refinements to re-engineering of receipt, inspection, acceptance & pay to add RFID requirements & explore architecture solutions for the scenarios
1	2a	Explore value in capturing RFID data traceability as part of WAWF requirements
2	3	Develop a tighter integration between MIL-STD-129 and -130L
3	4	Scenarios need to address nesting of shipment data
3	5	Develop an integrated data flow to connect UID to RFID. Goal is to streamline RFID adoption by industry
3	6	Explore solutions & business rules to operationalize the above



Integration of MIL-STD-129 & -130 & Defense Transportation Regulation

Concerns

- **Intersection with engineering and configuration management**
 - Confusion introduced with UID – Design Agent versus Manufacturer
- **Not a guaranteed data environment**
 - PM discretion widely applied
- **Human readable requirements unconstrained**
- **Some examples are confusing:**
 - 130 is not strategic but focuses on tactical
- **Separating policy, policy source, guidance:** need integration across receipt, inspection, acceptance and pay

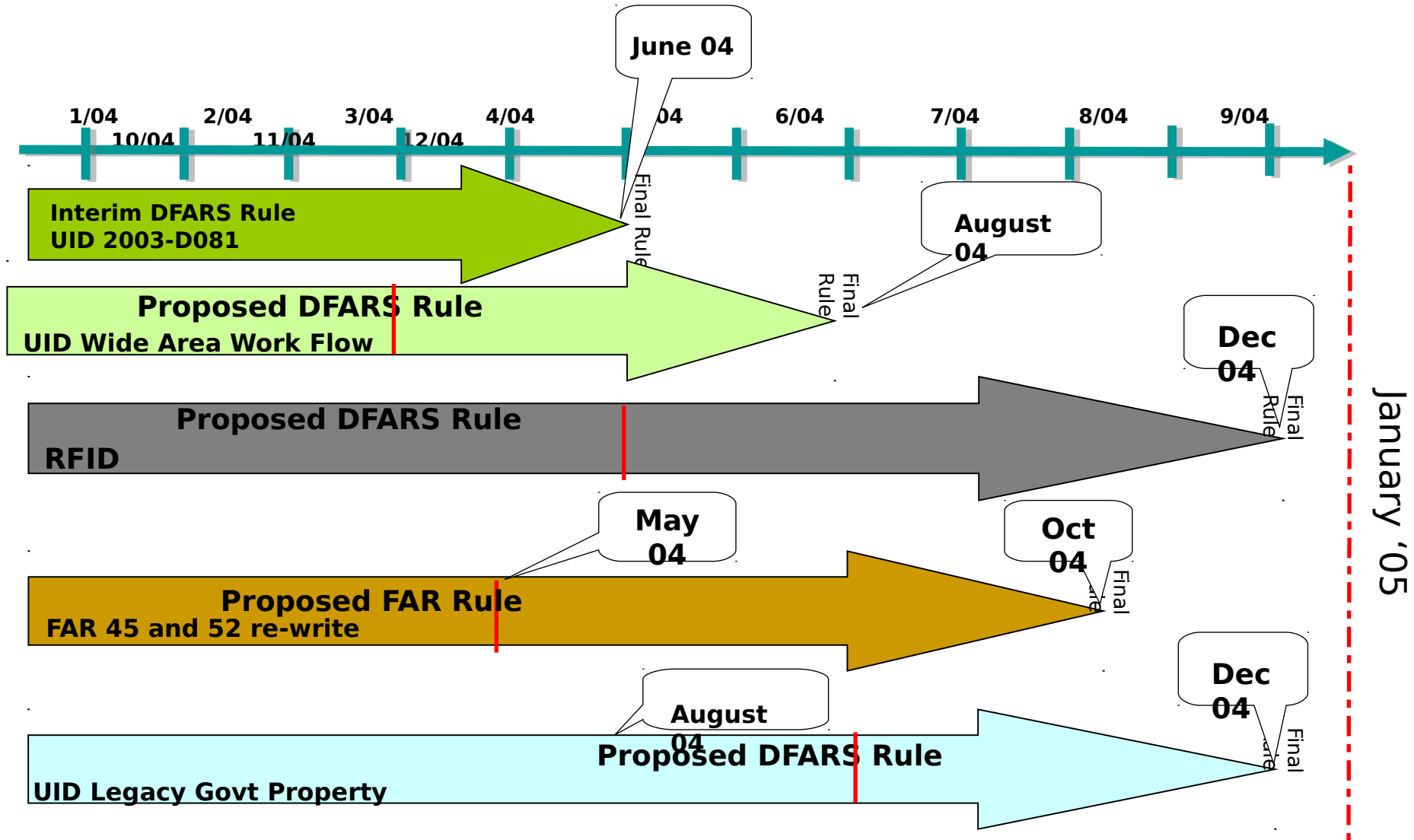
Ideas

- **Need to design new “to be” process**
 - Consistent use of enterprise identifier & part identifying number
- **Standardize vendor flow down**
 - Establish Joint govt/industry working group)
- **Move Guidance from -130 to DFAR Clause**
- **Recognize & rationalize interests of Property, Packaging & Configuration Management stakeholders:** Involves warehousing, transportation, and maintenance

DFARS



FAR/DFARS Spiral





Commercial Products and UID

UID Required

- ◆ Explore UID equivalent possibilities
- ◆ Explore application of the physical marks by
 - Prime contractor
 - Government
- ◆ Outsource marking capability

No UID Required

- ◆ Commercially acceptable mark required



Embedded UIDs

Step 1 - Systems engineering, logistics, program management experts identify items requiring UID*

Step 2 - UID migration strategy is negotiated with contractor

Step 3 - UID is an enabler to integrate configuration management, supply chain, maintenance etc. information

*Consider Plant-wide Single Process Initiative

Item Marking, Reading, Scanning



Item Marking, Reading, Scanning

- ◆ Marking Standards Update
- ◆ UID Equivalents Process
- ◆ Interoperable UID Algorithm
- ◆ UID Process Views
 - Vendor Perspective
 - Receipt & Acceptance



Marking Standards Update

Problem:

AREA	DoD UID POLICY	ATA SPEC 2000
Syntax	Uses ISO/IEC 15434 headers, separators and trailers for unambiguous message string - no ambiguity	Only uses field separator in message string - ambiguity exists for beginning and end of message

Solution: Seek incorporation of Text Element Identifiers in ISO/IEC 15434

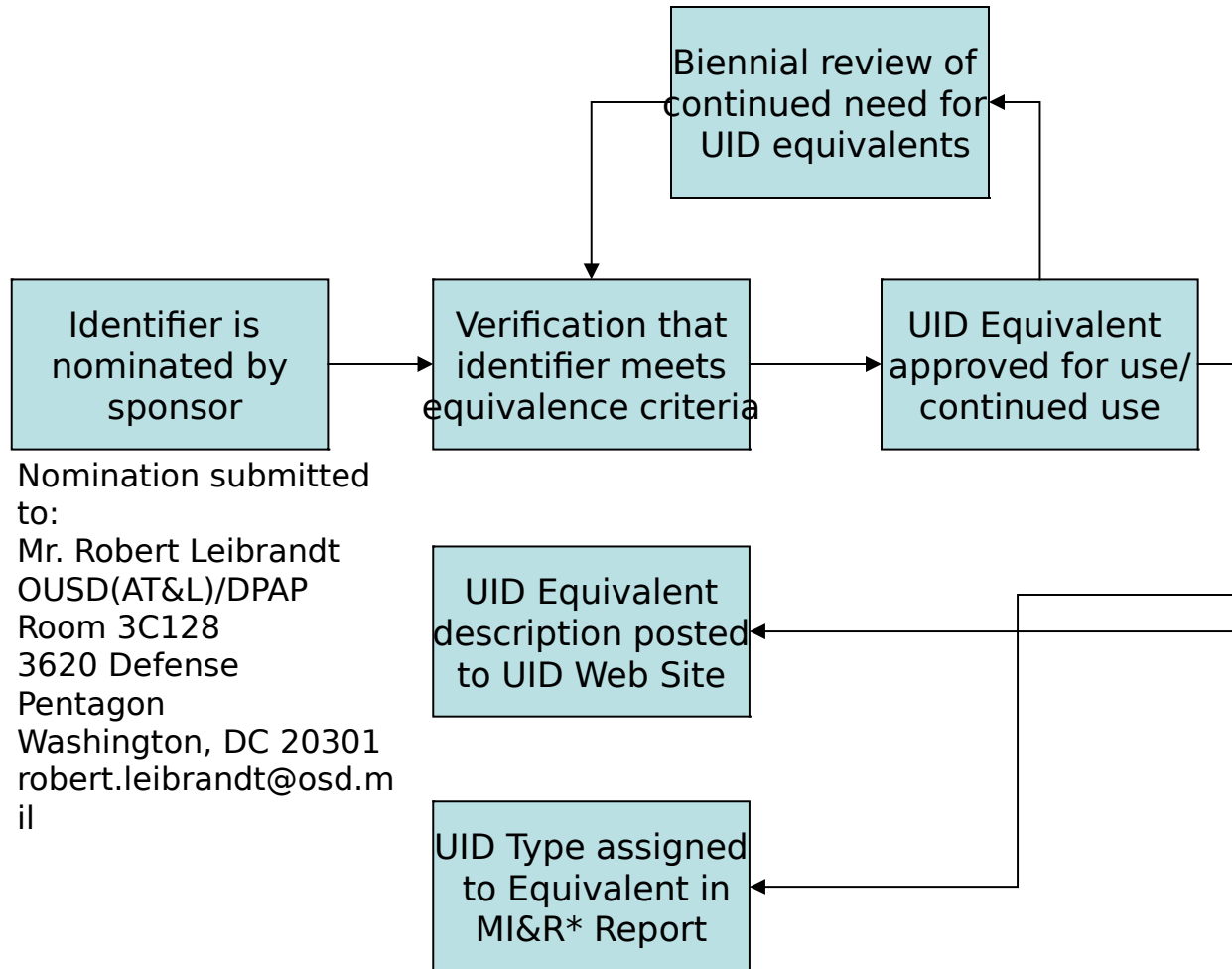
- ◆ 28 January 2004 – DoD New Work Item Proposal submitted to the U. S. TAG specifically asks a new format code be added to ISO/IEC 15434 to support the use of Text Element Identifiers
- ◆ Request was made specifically to facilitate the Department's UID initiative and bring about interoperability in the marking of tangible items with its aerospace suppliers.

Issue: Will Defense aerospace companies use the DoD interim format code of “DD” or a new format code if approved by JTC1 Subcommittee 31?

Impact: Might eventually require redundant marking of some items also sold to commercial customer by aerospace suppliers.



DoD UID Equivalents - Process Steps



Nomination submitted to:
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UID - Unique Identification
MI&R - Materiel Inspection & Receiving



DoD UID Equivalents - Criteria

Criteria for Determining DoD UID Equivalence

- ◆ Must contain an enterprise identifier, which is assigned by a registration or controlling authority
- ◆ Must uniquely identify an individual item within an enterprise identifier, product or part number
- ◆ Must have an existing Data Identifier (DI) or Application Identifier (AI) listed in ANSI MH10.8.2, Data Identifier and Application Identifier Standard



DoD UID Equivalents

Identifiers Meeting the Equivalence Criteria

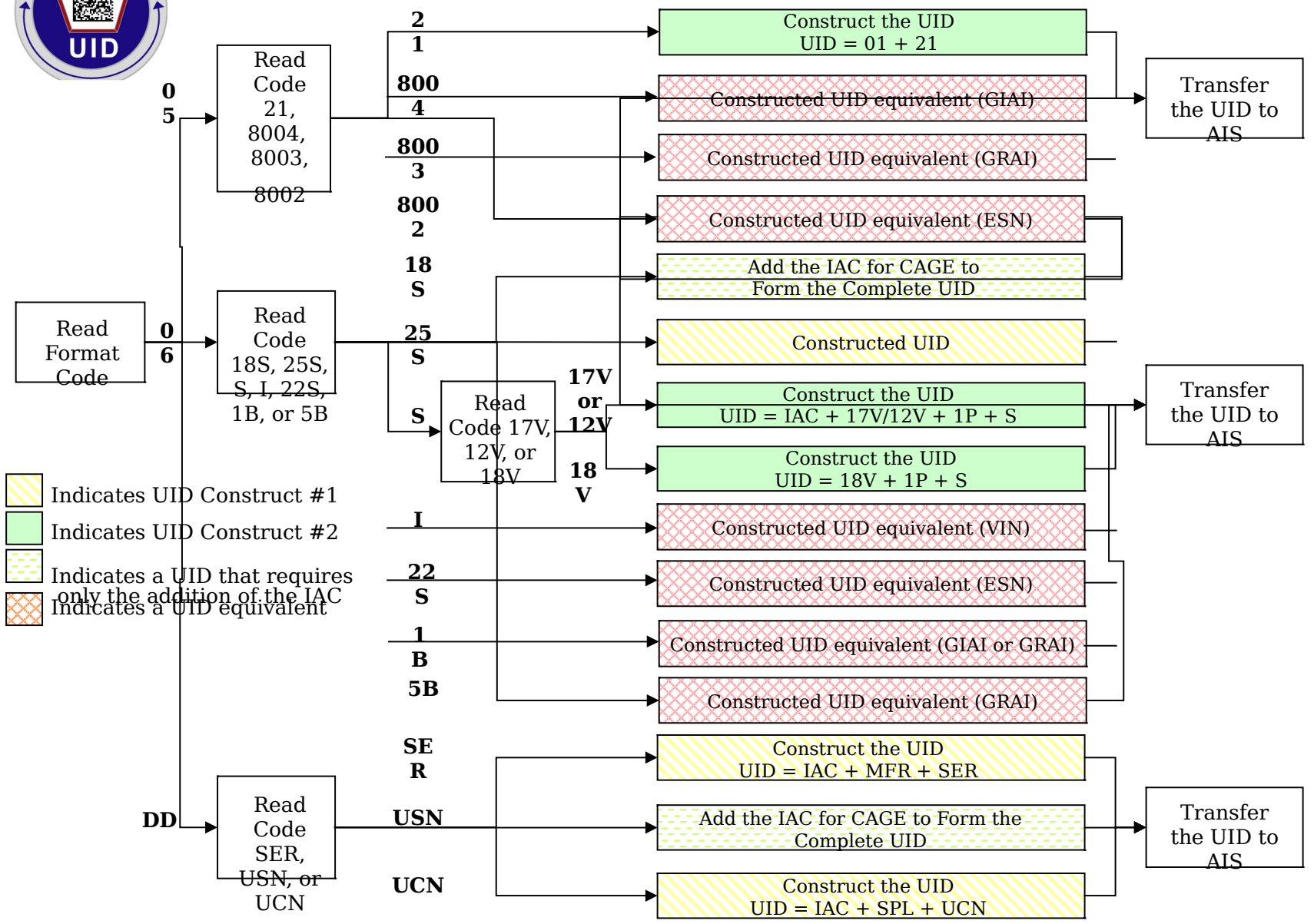
- ◆ Global Individual Asset Identifier (GIAI), EAN.UCC (Application Identifier: 8004; Data Identifier: 1B)
- ◆ Global Returnable Asset Identifier (GRAI), EAN.UCC (Application Identifier: 8003; Data Identifier: 1B or 5B)
- ◆ Vehicle Identification Number (VIN), ISO 3779 (Data Identifier: I)
- ◆ Electronic Serial Number (ESN, for cellular telephones only), TIA (Data Identifier: 22S; Application Identifier: 8002)

Issue: None

Impact: Enables the use of existing unique identifiers in commercial use.



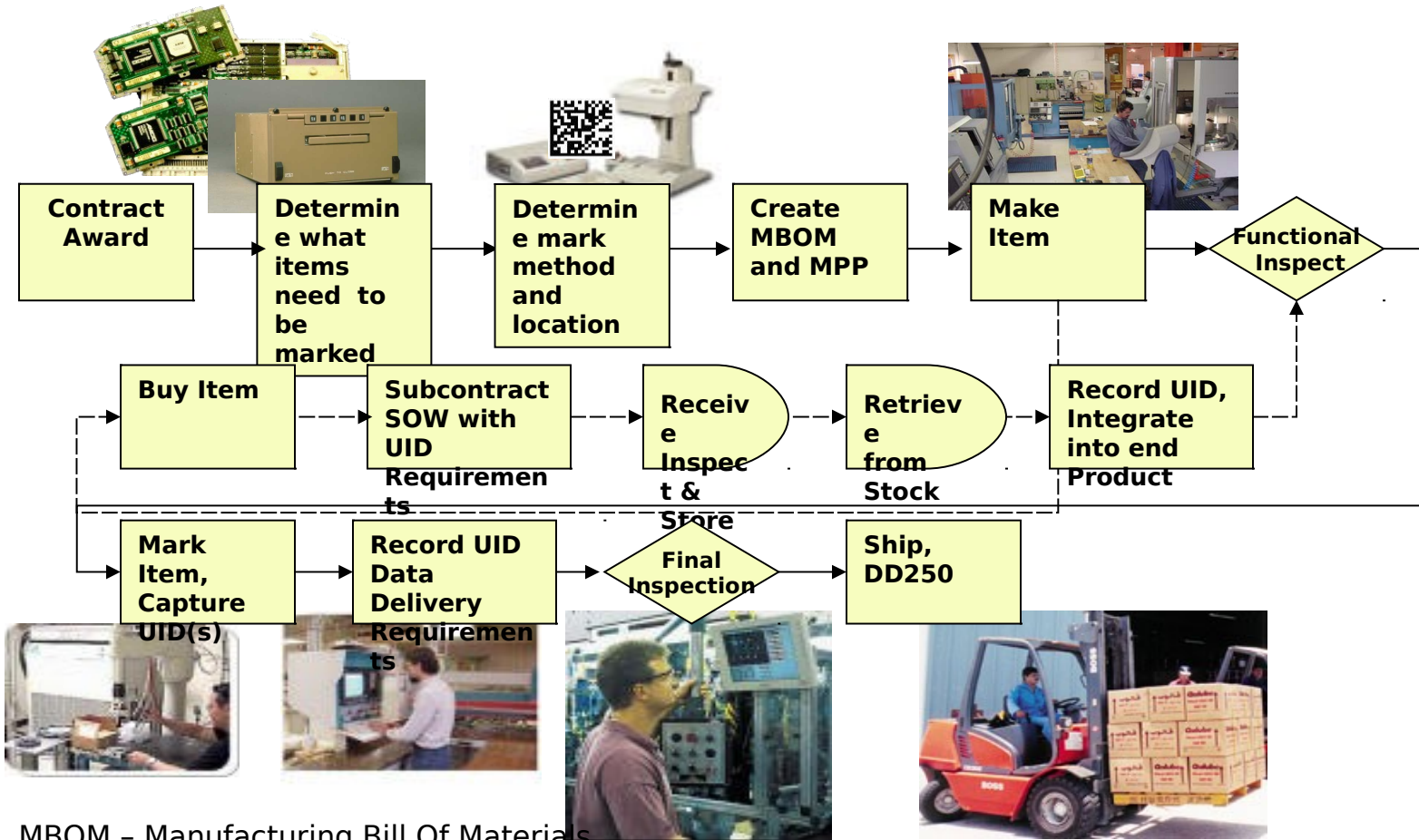
Interoperable UID Programming Algorithm



Issue: AIT devices/Computers must be able to distinguish between formats.
Impact: Interoperable reading of alternative syntax codes.



UID Vendor Perspective

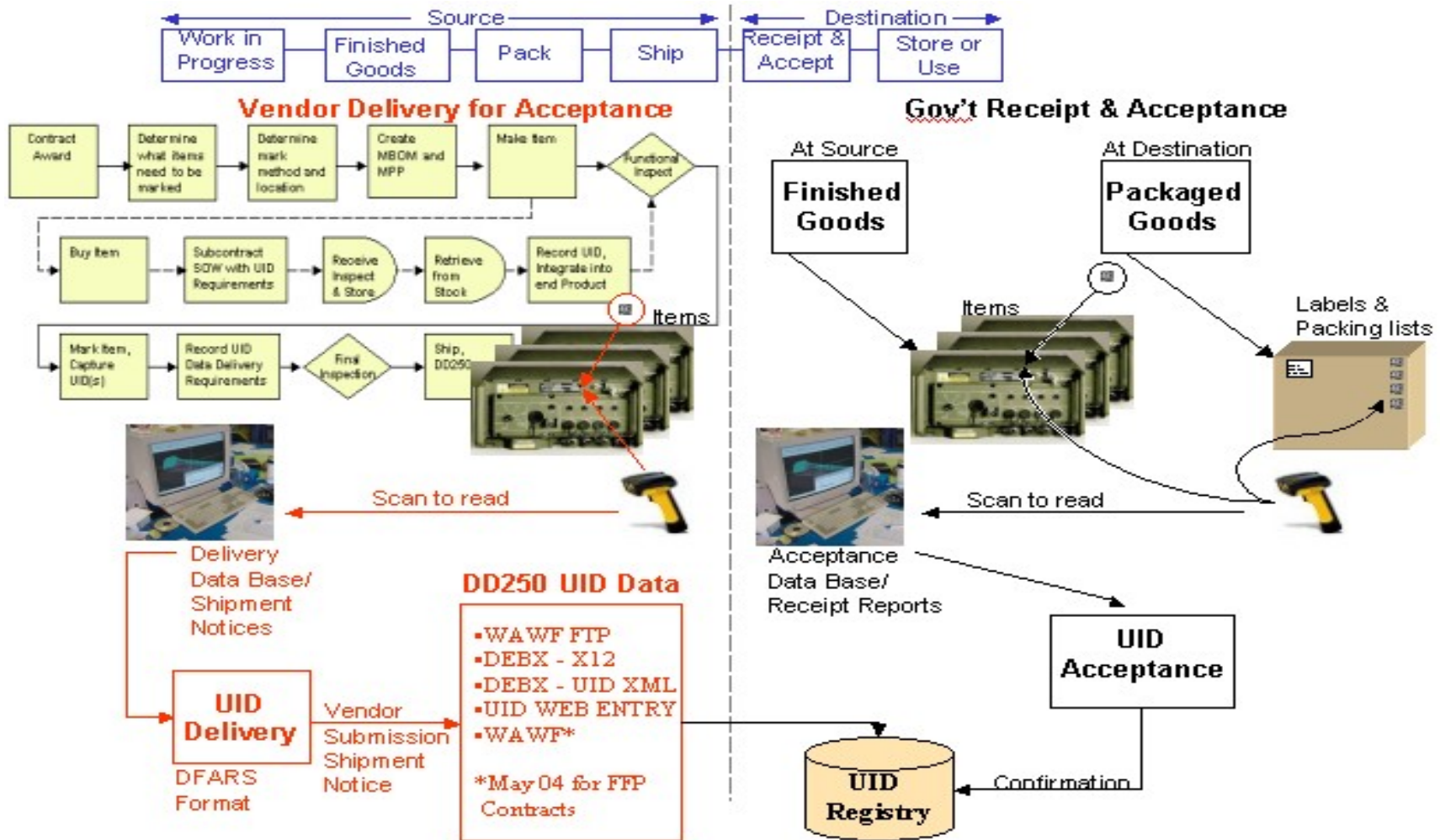


MBOM - Manufacturing Bill Of Materials
MPP - Manufacturing Process Planning

Issue: Existing marking processes must be able to accommodate UID requirements.
Impact: Existing investments in marking infrastructure are leveraged.



UID Receipt and Acceptance Process



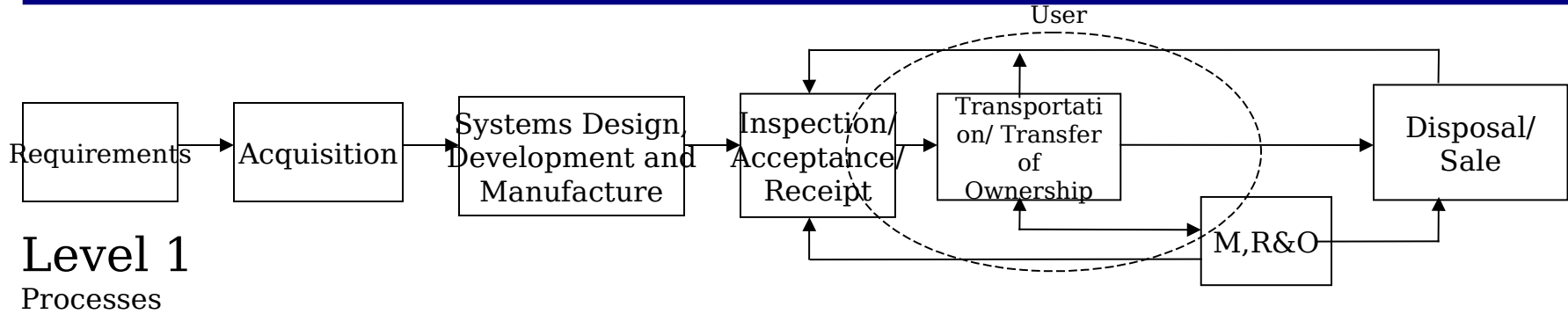
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Impact: Existing investments in marking infrastructure are leveraged.

End To End Process



Leveraging UID Data Capture/Use



Level 1
Processes

Requirements Mgmt	Supplier Mgmt Procurement Inventory Mgmt Contracts Mgmt	Configuration Mgmt Inventory Mgmt Manufacturing Part Marking Assembly Packaging Distribution/Shipping	Inspection Acceptance Receiving Payment Validation	Loading Hauling Tracking Unloading Inventory Mgmt Property Mgmt X-fer Ownership	Repair Upgrade/Modification Preventative Maint Failure Analysis Inventory Mgmt Marking/Re-marking Configuration Mgmt	Consumption Demilitarize FMS Intra-gov't transfer Inter-gov't transfer Scrap
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Level 2
Processes

Identify UID items	Solicitations Contracts Trace-ability	Mark Scan Populate Ship Notice Populate DID/CDRL Populate CM system	Populate Registry Update Inventory	Update PM system Update Inventory Populate Trans. DB	Update Registry Update Inventory Update Maint. DB Update CM system Update PM system	Update Registry Update Inventory Record in PM system
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Level 3
UID Transactions



Systems Engineering

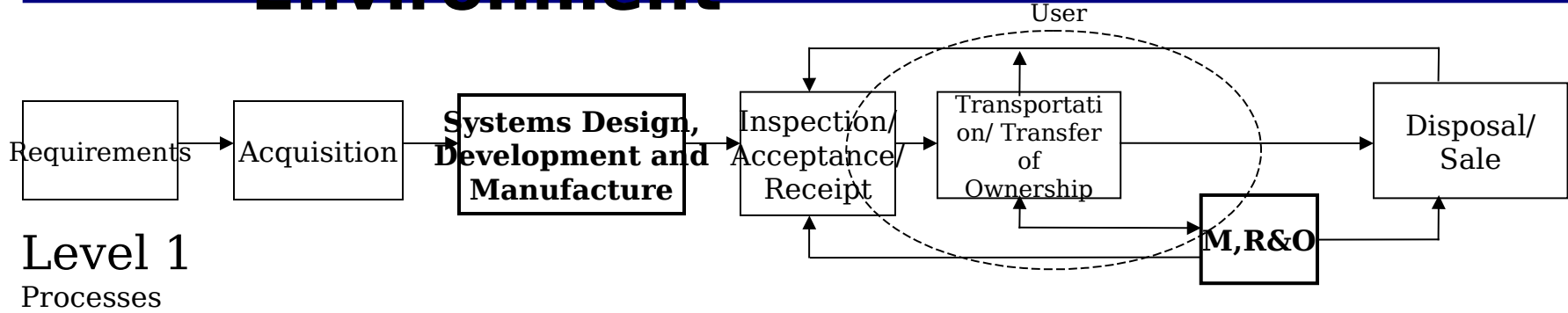


Systems Engineering Guidance

- ◆ Updating list of Government/Industry standards, handbooks, DoD Acquisition Guide, and Data Item Descriptions that affect UID.
- ◆ Working guidance issue with GEIA on GEIA Handbook 649
 - Projected completion in December 2005 unacceptable
 - Estimated cost to pay for the rewrite also considered excessive burden on the government



Leveraging UID Data Capture/Use in the Systems Engineering Environment



Level 1
Processes

Requirements Mgmt	Supplier Mgmt Procurement Inventory Mgmt Contracts Mgmt	Configuration Mgmt Inventory Mgmt Manufacturing Part Marking Assembly Packaging Distribution/Shipping	Inspection Acceptance Receiving Payment Validation	Loading Hauling Tracking Unloading Inventory Mgmt Property Mgmt X-fer Ownership	Repair Upgrade/Modification Preventative Maintenance Failure Analysis Inventory Mgmt Marking/Remarketing Configuration Mgmt	Consumption Demilitarize IMS Intra-gov't transfer Inter-gov't transfer
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Level 3
UID Transactions



Leveraging UID Data Capture/Use in the Systems Engineering Environment

- ◆ Work with GEIA on the prior process model resulted in the following matrix of UID policy impact areas:

Process Area	Mandatory Considerations	Optional Considerations
Manufacturing, Assembly and Part Marking	7	2
Requirements Management	7	1
Supplier Management	4	3
Configuration Management	3	3
Inventory Management	4	3
Packaging, Distribution and Shipment	3	0
Repair and Preventative Maintenance	2	2
Modification and Upgrade	2	1
Failure Analysis	1	2

Maintenance



UID Maintenance Implementation

Description of Effort

- ◆ Define a methodology for implementing UID in the maintenance environment.
- ◆ Operate as a sub-group to the Maintenance Senior Steering Group (MSSG) (JRIB-UID Charter).
- ◆ Briefing to Service logisticians at MTSSG, January 7, 2004.
- ◆ Taskers to Services/Depot Activities signed by Mr. Mason to provide feedback assessment of capabilities to institute UID by January 2005. (Manufactured items only).
- ◆ MPP&R as part of UID and RFID implementation is working to coordinate and facilitate depot maintenance actions.
- ◆ MPP&R reports back to JRIB-UID depot maintenance status.



UID Maintenance Implementation

Deliverables/Timeline/Status

- ◆ Services/Depots Activities assessments – February 2004
- ◆ Initial Depot Maintenance IPT – March 9, 2004
 - ICW UID Workshop
- ◆ Quarterly reports of Depots UID efforts will be provided to JRIB
- ◆ Depot Activities Implement UID – January 2005
 - Manufactured Items Only
- ◆ Approved Logistics Decision/Policy Memorandum – TBD
- ◆ Depot Activities Implement Full-up UID of all candidates – TBD

Next Steps



Communication and Outreach

- ◆ Currently working on a more comprehensive communication and outreach plan
 - Improve international involvement with regular, focused conference calls to educate and increase presence of UID
 - International UID communication and outreach to date or planned:
 - UK
 - Canada
 - Korea
 - Australia
 - Sweden
 - France
 - 21 Nation Memorandum of Understanding (MOU) Group
- ◆ US-based industry and professional associations are engaged
- ◆ Efforts are underway to reach international associations
- ◆ How can the JRIB members help promote communication and outreach?



UID Policy Implementation Timeline

Communication and Outreach Events

- ◆ Implementation Working Group (IWG) Conference Call - 25 February 2004
- ◆ National Defense Industrial Association (NDIA) Panel Discussion - 01 March 2004
- ◆ Association for Automatic Identification and Mobility (AIM) Conference - 09 March 2004
- ◆ Defense Logistics Management Standards Office (DLMSO) MILS Conference - 09-10 March 2004
- ◆ UID International Conference Call - March 2004
- ◆ UID Industry Roundtable - March 2004
- ◆ DoD RFID Summit for Industry 2004 - April 2004
- ◆ UID Industry Forum - April 2004
- ◆ MoD/DoD Discussions - UID Collaboration - April 2004

A summary of all past communication and outreach events is available on the UID website: www.uniqueid.org

SubGroups



Four UID Breakout Groups

- ◆ UID Readers, Printers, Scanners
 - Language of the Mark
 - Acquisition Infrastructure
 - Hardware
- ◆ Systems Engineering/Configuration Management
- ◆ Draft UID Legacy Equipment Policy
- ◆ Receipt/Accept/Inspect/Pay Process Re-engineering